Logging and Conservation of Endangered Plant Communities on Vancouver Island

Complaint Investigation 040555

FPB/IRC/112

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Key Concepts and Terms

Plant community - A natural plant community is a unit of vegetation with a relatively uniform species composition and physical structure. Natural plant communities also tend to have characteristic environmental features such as bedrock geology, soil type, topographic position, climate, and energy, nutrient and water cycles.

Element occurrence - An area of land in which a natural plant community is, or was present. An Element Occurrence should have practical conservation value for the Element (plant community) as evidenced by potential continued (or historic) presence and/or regular recurrence at a give location. For community Elements, the element occurrence may represent a stand or patch of a natural community, or a cluster of stands or patches of a natural community.

Vulnerable - Particularly sensitive to human activities or natural events. Found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extinction or elimination.

Apparently secure community – May be uncommon but not rare. More than 80 occurrences.

Viable occurrence - the probability of persistence of an occurrence based on its size, condition, and landscape context. It is likely that, if current conditions prevail, the occurrence will persist for a period of time, typically 20-100 years depending on the species or community.

Climax – culminating, self-replacing stage in plant succession that is relatively stable and persists for long periods relative to earlier stages.

Biogeoclimatic ecosystem classification – a classification system that groups together ecosystems with similar climate, soils and vegetation.

Species-at-risk - A formal designation by the Minister of Environment of species or plant communities impacted by forest or range practices. Designation is required before habitat can be protected under the Identified Wildlife Management Strategy (IWMS) under the Code and now the *Forest and Range Practices Act*. A more comprehensive list of species vulnerable to extirpation or extinction in BC is maintained by the Conservation Data Centre

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Executive Summary

Background

This investigation began with a complaint, from the Carmanah Forestry Society, about the approval of an amendment to the BC Timber Sales Program's 2000-2004 forest development plan, located on the east coast of Vancouver Island in the South Island Forest District. The complainant asserted that the district manager did not adequately consider information about "red-listed" (endangered or threatened) plant species and their occurrences in younger forests located in the proposed logging area. The complainant was concerned that continued timber harvesting will eliminate all such plants in the area.

The east coast of southern Vancouver Island is highly fragmented and is dominated by private land with small pockets of Crown land. There is also very little old forest remaining on the landscape. The provincial Conservation Data Centre (CDC) has identified 33 red-listed plant communities that are likely to occur in the two biogeoclimatic units that make up the area of the approved plan. All the plant communities are identified as being either at "very high" or "high" risk of extinction.

The Board investigated whether it was reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve red-listed plant communities. The Board reviewed what information the district manager considered, and the risk assessment process the district manager followed to be satisfied that the plan would adequately manage and conserve the forest resources.

The district manager's decision only applied to Crown land within the plan area, and did not consider how many occurrences of red-listed plant communities on Crown land were needed to adequately conserve the plants, assuming that most of the plants on private land could be lost due to development.

The district manager considered expert advice from the CDC, Ministry of Environment[1] (MOE) staff and a hired consultant, all indicating that red-listed plant communities were at high risk of extirpation on the east coast. Senior managers of MOE and the Ministry of Agriculture and Lands[2] (MOAL) also provided policy advice.

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[1] Formerly called the Ministry of Water, Land and Air Protection. This report refers to the ministry by its new name, the Ministry of Environment.

[2] The Ministry of Sustainable Resource Management at the time. Land use planning responsibility has since been transferred to the new Ministry of Agriculture and Lands and this report refers to the new ministry.

For the cutblocks in one of the biogeoclimatic units, the coastal Western hemlock ecosystem (CWHxm1), the district manager believed the amount of remaining forest stands was sufficient to ensure that there would be red-listed plant communities remaining, and that the area proposed in the cutblocks would not significantly increase the risk that these plant communities would be extirpated. The Board finds that decision to be reasonable.

However, for the cutblocks in the other biogeoclimatic unit, coastal Douglas fir (CDF), the district manager believed that areas covered by the proposed cutblocks were not high priorities for conservation. The Board found there was insufficient information for the district manager to approve logging, as no site assessment was done to verify whether the red-listed plants were actually present in this part of the plan area, or how important occurrences of these plant communities might be for conservation purposes. There is very little of this particular ecosystem remaining in this area, and the red-listed plant communities within it are at very high risk of becoming extirpated. For these reasons, the Board finds that the decision to approve harvesting in the CDF ecosystem was not reasonable.

Board Commentary

This investigation relates to an issue that has come up a number of times in recent Board work: tools are lacking or inadequate to protect endangered and threatened plant species and plant communities on Crown forest lands on the Lower Mainland and Southeast Vancouver Island.

In deciding on approval of the amendment, the district manager was placed in a difficult position by government policy and by the lack of resource information from other ministries. The decision was made with a limited Crown landbase; limited tools to manage the red-listed plant communities; limited information about red-listed plant communities; and a limited ability of agencies to collect resource information.

In the end, given the significant risk of extirpation and the lack of information on the actual presence of red listed plant communities and their possible conservation value, the Board found that the district manager's rationale of relying primarily on old-growth management areas (OGMAs) and possible wildlife habitat area (WHA) options to manage red-listed plant communities elsewhere in the CDF zone was not reasonable. In taking this position, the Board recognizes that there is always risk with development and this does not in itself mean a plan should not be approved. The specific circumstances of individual cases should determine the level of caution that is needed, in particular the risk of extirpation of a species or plant community.

Since the district manager approved the amendment, a new list of species-at-risk was approved by the Minister of Water, Land and Air Protection, in 2004. The list no longer includes any plant communities, further limiting the tools available for conservation.

Without this formal designation, the Minister of Environment can not designate a WHA, which is one of the few tools available to conserve red-listed plant communities.

It is apparent to the Board that there is currently no effective mechanism in place to adequately conserve red-listed plant communities on the Crown forest landbase on Southeast Vancouver Island.

Summary of Recommendations[1]

As a result of this investigation, the Board is recommending that government agencies develop a protocol for assessing red-listed plant communities, and ensure site assessments are conducted to locate these communities, before approving any further logging within the CDF ecosystem.

The Board is also recommending that government review old-growth retention targets to determine if they are sufficient to provide protection for red-listed plants over the long term. The Board recommends that government put a high priority on designating, as species-at-risk, those red-listed plant communities in the coastal Douglas fir ecosystem that may be affected by forest management on Crown land, and establishing wildlife habitat areas to conserve those plant communities.

The Board also supports an Interagency Management Committee's recommendation that government review, and consider increasing, the one percent timber supply cap for creating new wildlife habitat areas in the South Island Forest District.

[1] See page 17 for the full text of recommendations.

Logging and Conservation of Endangered Plant Communities on Southeast Vancouver Island

Coastal Douglas Fir Biogeoclimatic Zone

(Map not to scale)

Enlarged area

The Investigation

On April 23, 2004, the Board received a complaint from the Carmanah Forestry Society (the complainant) about the approval of an amendment to the BC Timber Sales Program's 2000-2004 forest development plan, located in the South Island Forest District. The complainant asserted that the district manager did not adequately consider information about "red-listed" plant communities, and their occurrences in younger forests, when deciding to approve the amendment. Red-listed plant communities are extirpated (locally extinct), endangered, or threatened. The complainant was concerned that the district manager did not adequately consider the status of these plant communities, or concerns that continued timber harvesting will lead to their extirpation.

Initially, the complainant asked the Board to request an administrative review of the approval of the amendment. The Board declined because there was no indication of a legal error in the preparation of the plan. Instead, the Board proceeded with a complaint investigation, examining whether the district manager's approval of the forest development plan amendment was reasonable, considering the concern about red-listed plant communities.

Background

Managing Crown forests on southeast Vancouver Island is challenging because Crown forests consist of small pockets of land scattered over a large landscape dominated by private lands. The dispersed and fragmented forest creates unique challenges for managers dealing with conservation issues. The landscape as a whole contains very little old forest, due to past logging and urban development. Southeast Vancouver Island contains two biogeoclimatic units with significant conservation issues: the CDF, the coastal Douglas fir zone, and the CWHxm1, a subzone of the coastal Western hemlock zone. These two ecosystems make up much of southeast Vancouver Island and most of it is on private land, beyond direct government control. These ecosystems have been described by provincial government staff as among the most vulnerable to extirpation in the province.

The BC government's Conservation Data Centre (CDC) ranks species in terms of vulnerability and manages a conservation database for use by the public and government. The CDC provides information and expert opinion on the status of species for government, licensees and the public to use on a voluntary basis. Species are ranked based on vulnerability to extirpation, with those on the red-list considered the most vulnerable.

The CDC has identified 20 red-listed plant communities containing different combinations of plant species (e.g., Douglas-fir/dull Oregon-grape) that are expected to occur within the CDF biogeoclimatic unit, and 13 that are expected to occur within the CWHxm1 subzone. All the plant communities are identified as either "critically imperilled" or "imperilled"

within the province and many in the CDF are being considered for the same designation globally. Critically imperilled communities are described as being at very high risk of extinction and may have fewer than five known viable occurrences in the province. Imperilled communities are at high risk of extinction and may have fewer than 20 known viable occurrences. The CDC website indicates that it takes 80 occurrences for a community to be considered apparently secure, but the number of occurrences is less significant than other factors, such as continued habitat loss.

Red-listed plant communities are only fully developed (in terms of the type and number of plant species and their distribution) at the old-growth forest successional stage, but there is a high likelihood that any forest stand in the CDF or CWHxm1 will contain a red-listed plant community. However, more information than just the presence of red-listed plant communities is needed to know if the site is important for conservation. Occurrences of red-listed plant communities also need to be assessed for their conservation viability. The size and condition of an occurrence of a plant community are important factors. The best sites in the second growth forests on southeast Vancouver Island are those with veteran trees and predominantly natural regeneration, particularly where the sites were only lightly disturbed by the original harvesting activities.

The CDC makes information available to help identify red-listed plant communities in the field. Until 2003, the CDC website only included information about occurrences of red-listed plant communities in older forests. This created a misunderstanding that rare plant communities occurring in younger forests were not important for conservation. The CDC concluded that this misunderstanding had significant negative consequences for the protection of rare plant communities. Given the rarity of these sites, occurrences in younger forests may actually be very valuable for conservation because they will develop into old forest plant communities.

The complaint concerned cutblocks located in resource management zone (RMZ) 34 on southeast Vancouver Island. RMZ34 is classified as a "general management zone" by the Vancouver Island Summary Land Use Plan (VISLUP). The plan does not establish legal objectives specifically for red-listed plant communities, but contains a general biodiversity strategy: to generally maintain existing old seral forests and stand features. In addition, the strategy calls for recruitment of old seral forest features, through stand level management practices, wherever biodiversity conservation at the landscape level is not practical.

In RMZ 34, the VISLUP states that the CDF (in the Nanaimo Lowlands), as well as the CWHxm1 and xm2 ecosystems, are underrepresented in protected areas. Old forest in these ecosystems is rare. Although private land in the southeast area of the island is not part of the plan, the VISLUP technical team considered the biodiversity risks and benefits associated with these areas when developing biodiversity direction for the plan area.

In February 2002, the BC Timber Sales Program[1] (BCTS) and MOAL commissioned Holt and Mackinnon[2] to produce an old-growth strategy for the Crown land on southeast Vancouver Island. The strategy was to be framed within the context of landscape unit planning and include recommendations for old-growth management. It was also to recommend alternative approaches to forest management to increase biodiversity values. The report provided information for a larger planning project by MOAL and was not specifically for forest development planning. It identified that at least half of the plant communities occurring on southeast Vancouver Island are provincially rare or endangered and most of the other plant communities are vulnerable.

The report authors noted that, if there is little or no old growth on the private landbase, the target amount of old seral forest to be set aside will be much less than is necessary to maintain a viable population, resulting in a very high risk to biodiversity values. The authors recommended that old seral retention objectives be based on a percentage of the total amount of forest area (private plus Crown land), not just the area of Crown land. In the short term, given the high risk, the authors recommended that as much old growth as possible should be set aside on Crown land. The authors also stated that it will be up to private forest landowners to increase the likelihood of success, by adopting similar strategies and working with the province to maintain the rare ecosystem. They recommended that a coordinated plan to manage old growth values be developed.

In April 2003, BCTS advertised an amendment to its 2000-2004 forest development plan (FDP) for the Cowichan operating area, including RMZ 34. MOE staff provided comments to BCTS on the amendment and on the issue of conserving red-listed plant communities. MOE was concerned about how BCTS would address the issue of red-listed plant communities, and asked that there be no further logging of forests likely to contain them until MOE completed a conservation strategy. MOE wanted to assess all areas first, and pick the best remaining candidates for designation as wildlife habitat areas (WHAs).

It is significant that WHAs could only be designated for habitat of organisms that have been designated as "species-at-risk" by the deputy minister of MOE[3]. When this amendment was being considered for approval, only one CDF plant community had been designated, so protection through WHA designation would have very limited application in this case.

MOE staff also raised the CDC's concern about the importance of younger forest occurrences, and the need to manage all red-listed plant communities. BCTS promised to consult with MOE staff during cutblock layout if red-listed plant communities were present. BCTS provided the district manager with the correspondence from MOE regarding the amendment and red-listed plant communities.

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[1] At the time, this program was known as the Small Business Forest Enterprise Program.

[2] *Old Growth Strategy for Southeast Vancouver Island*, R. Holt and G. Mackinnon.

[3] This authority now rests with the Minister of Environment.

Information was prepared for the Minister of Sustainable Resource Management to decide on the balance of social needs and biodiversity issues in this area. However, it never went to the minister for a decision and, without new direction, the regional director of MOAL and regional manager of MOE sent a letter[7] to the district manager, regarding FDPs and biodiversity issues on the east coast of the island. They said: "Addressing this issue at an operational level through review of forest development plans has not proven an effective means of addressing critical conservation objectives, or with preservation of economic opportunities within and outside forestry." They advised that decision makers should continue to use existing land use direction such as VISLUP in making their decision. "At appropriate times, strategic land use direction may be changed, however government agencies are not to make ad hoc changes to land use direction based on individual pieces of new science and operational decisions." Instead, the letter said that MOE staff would accelerate the identification of wildlife habitat areas (WHAs) to "protect critical habitat and provide increase certainty for economic development." They said that the issue of biodiversity would be discussed and dealt with by the Coast Interagency Management Committee (IAMC). They also indicated that the Coast IAMC would determine how land use direction would be assessed to determine if changes were warranted.

BCTS submitted the amendment for approval in March 2004. It contained three cutblocks covering 66 hectares in the CDF and 13 cutblocks totalling 762 hectares in the CWHxm1. The cutblocks are located mainly in early mature forests. The presence or absence of red-listed plant communities was not known because an assessment to determine presence and condition had not been done on the blocks. Of the four landscape units included in the area of the amendment, two are managed at an intermediate biodiversity emphasis level and two are managed at a lower biodiversity emphasis level.[8] The amendment was approved in April 2004.

In March 2004, MOE staff wrote to BCTS and the Ministry of Forests and Range[9] (MOFR) district regarding a cutblock that was not part of the amendment under investigation. Of relevance to this investigation, the letter said that there was insufficient information to advise the district manager whether red-listed plant communities were likely to be in the cutblock. MOE did not believe that a field review of blocks with characteristics associated with red-listed plant communities would be beneficial, because there was inadequate expertise available in both MOFR and MOE. MOE suggested that BCTS retain a qualified expert to assess such sites.

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[7] Letter from Regional Director, MSRM and Regional Environmental Stewardship Manager, MWLAP, to District Manager, South Island Forest District, May 12, 2003.

[8] The VISLUP assigned a biodiversity emphasis option to each landscape unit within RMZ 34 using the *Landscape Unit Planning Guide* designations of lower, intermediate and higher emphasis. The level of management for biodiversity increases from the lower to the higher biodiversity emphasis.

[9] The ministry was called the Ministry of Forests at the time.

This is the second investigation of a complaint by the Carmanah Forestry Society relating to the approval of a BCTS FDP in the Cowichan operating area. The first investigation concluded in 2002.[10] In that investigation, the Board said that it was appropriate for the district manager to conclude that forest resources on southeast Vancouver Island were adequately managed and conserved when the FDP was put into effect. However, the Board also recommended that the Vancouver Island Interagency Management Committee (IAMC) review the effectiveness of the strategy to manage species-at-risk in accordance with the Forest Practices Code, and to maintain the diversity and abundance of native species and their habitats in RMZ 34.

The Coast IAMC responded to the Board's recommendation in April 2003, stating that such an assessment was difficult because the strategy relied upon landscape-level planning that had not been completed. The IAMC anticipated that monitoring of plan implementation and effectiveness might begin after completion of major planning initiatives in 2004. In July 2005, the Board was advised that a review had still not been done. At the provincial level there is an effort to develop a strategy to review and assess land use plans. The IAMC will review the land use plan when it is able.

Discussion

The Board investigated whether it was reasonable for the district manager to be satisfied that the amendment would adequately manage and conserve red-listed plant communities.

The complainant asserted that the district manager's rationale did not consider the information on the CDC website regarding the imperilled status of plant communities in the CDF and CWHxm1, and the conservation value of occurrences in younger forests. The complainant said the district manager had failed to provide adequate protection to those plant communities, and relied too much on government policy and not enough on expert advice indicating that red-listed plant communities are at high risk. More generally, the complainant believed that continued harvesting would inevitably result in the extirpation of red-listed plant communities.

The *Forest Practices Code of British Columbia Act* and regulations (the Code) applied to the approval of the FDP amendment, so the investigation considered the requirements of the Code at that time. The Code does not apply to the private lands on southeast Vancouver Island.

The Code required that the district manager be satisfied that the FDP amendment adequately managed and conserved the forest resources of the area to which it applied, before the plan could be approved. That determination involved discretion. Both the Forest Appeals Commission and the BC Court of Appeal have made decisions discussing the

[10] *Small Business Forest Enterprise Program FDP for Southeast Vancouver Island*, FPB/IRC/74, July 2002.

statutory discretion involved in applying the "adequately manage and conserve test" in the Code. In *Cattermole*[11], the Court of Appeal said:

> The test to be satisfied under this section is a subjective one based on the opinion of the district manager making the decision. That is not to say that the district manager has *carte blanche* to make a decision based on whim or irrelevant criteria, but it indicates a legislative intent to give district managers considerable leeway in making their decisions.

The Board looks beyond strict compliance and reviews discretionary decisions to determine if they are within a range of reasonableness, not whether they are the best or most optimal decision.

The standard the Board uses is: was the decision consistent with sound forest practices, did it achieve the intent of the Code and was it based on an adequate assessment of available information? In applying this standard, the Board considers if the decision was made in circumstances where sufficient information was available. The Board therefore reviewed what information the district manager considered, and the decision process followed, for being satisfied that the plan would adequately manage and conserve the forest resources.

Management of Species-at-Risk

The approval decision considered species-at-risk in the area of the amendment. On Crown land, habitat for species or ecosystems at risk can be managed under a number of processes: protected areas; stand-and landscape-level forest practices; old growth management areas (OGMAs) or wildlife habitat areas (WHAs) for species designated as species-at-risk.

Species can receive habitat protection through designation of parks or other protected areas that encompass the habitat. Within managed Crown forest, habitat protection for a species can be addressed at a broad strategic level in a land use plan for a region. Alternatively, it can be dealt with through more site-specific landscape level planning. Generally, the Code anticipates that the habitat requirements of most species will be met through the application of landscape-and stand-level practices recommended in the *Biodiversity Guidebook*, the *Landscape Unit Planning Guide* and the *Riparian Management Area Guidebook*.

Protection of habitat for species-at-risk is also a consideration in planning for OGMAs. OGMAs were intended to be a key means of maintaining biodiversity in a landscape. Government has set targets for OGMAs, which are a percentage of the total amount of Crown forest land in each forest district. In most of the province, the forested land is all owned by the Crown. However, on the east coast of Vancouver Island, Crown land makes up only about ten percent of the forest area and the rest is privately owned. Since the

[11] Western Canada Wilderness Committee v. British Columbia (Ministry of Forests, South Island Forest District), 2003 BCCA 403

OGMA targets can only be applied on Crown land, the old growth retention targets are low and likely of limited ecological value for meeting the original intention for OGMA designation.

Designation of WHAs is accomplished through policy set out in the Identified Wildlife Management Strategy (IWMS). The IWMS fills conservation gaps that are not adequately dealt with by protected areas or OGMA planning. .If a species is designated as a "species-at-risk," the Ministry of Environment can establish WHAs for these species if that is compatible with existing government objectives for the area. Habitat is protected within WHAs by restrictions on forest practices.

In the IWMS version in effect at the time the district manager approved the amendment, one red-listed plant community in the CDF was included, and one WHA was established for that plant community. However, application of the IWMS is restricted by policy to having a maximum impact of one percent of the short-term timber supply in a district. At the time of the FDP amendment approval, WHAs for other species had already reached the one percent cap in the South Island Forest District.

Therefore, although there are planning tools available to manage these vulnerable plant communities, these are greatly restricted under existing policy. Further, as of May 2004, a new government order designating species-at-risk does not designate any plant communities as species-at-risk, so the WHA tool is no longer available for conserving the plant communities in question.

Information considered and the decision process

In the written rationale for the approval decision, the district manager discussed the management of red-listed plant communities in general terms. The district manager was aware that several plant communities in the CDF and CWHxm1 were red-listed by the CDC, and that the majority of the cutblocks in the amendment were in those ecosystems.

However, the rationale did not discuss the occurrence of red-listed plant communities in younger forests. There was also no reference to it in the text of the FDP amendment. The complainant feels the district manager should have acknowledged the risk the amendment posed to conservation of red-listed plant communities. The complainant also believes that the district manager should have more fully documented the risk assessment in the rationale.

The district manager assessed risk to evaluate the impact of the amendment on red-listed plant communities. Risk assessment is the process of determining the likelihood and magnitude of loss or damage. Approval of any proposed plan will inherently present some degree of risk to one or more forest resources. For Code purposes, the decision maker need only be satisfied that the plan is more likely to manage and conserve forest resources than

not. The district manager decides how much weight to give to various sources of information.

The district manager was aware of the structural stages issue (i.e., the importance of plant community occurrences in younger forests) and the concern for conservation of red-listed plant communities. The district manager had read and considered the MOE staff correspondence to BCTS, and also considered information about red-listed plant communities and structural stages on the CDC website. The district manager believed that the CDC information was not necessarily the best information because of the limited level of ecosystem surveying done by the CDC, but acknowledged the concern about red-listed plant communities and did not discount the CDC information or question whether the listed communities were at risk.

The district manager also considered maintaining options to achieve landscape unit targets for OGMAs. This consideration included reviewing seral stage information prepared by district staff for each landscape unit, and reviewing forest cover maps. The seral stage information indicated that there was no old growth remaining in either the CDF or the CWHxm1 ecosystems, in any of the four landscape units involved. There was also very little mature forest remaining; much of the proposed harvesting was in early mature forest. Nevertheless, the district manager was satisfied that the full target for old growth retention could eventually be met as younger forest was allowed to become old in each landscape. While the old forest targets could be met over time, the OGMAs will likely initially include no old forest and little mature forest.

The *Landscape Unit Planning Guide* states that the old seral forest for the CDF and CWHxm1 should make up more than nine percent of the forested landbase. Because this is applied only to Crown land, the resulting target, when both private and Crown land are considered, translates to less than 0.4 percent of the forested landbase for the CDF. For the CWHxm1, the percentage of private/Crown forested landbase represented by the target is less than 3 percent. Although attainment of the old seral targets is the responsibility of MOAL, the district manager considered the old seral targets when determining how the amendment managed red-listed plant communities.

The district manager considered the Holt/Mackinnon old growth strategy report and referred to it in the rationale, but believed that there was nothing of substance to consider in the recommendations, because the report was directed at landscape unit planning by MOE and MOAL. However, the report did provide corroboration for the CDC information and supported the concerns expressed by MOE staff. The report also provided relevant advice that old seral targets are too low to be ecologically significant.

In addition to old seral targets and draft OGMAs, in assessing the risk from the proposed cutblocks in the CWHxm1 ecosystem, the district manager considered other existing or proposed constraints within the CWHxm1 landbase. In the four landscape units covered by

the amendment, the district manager's rationale identified 576 hectares within the CWHxm1 ecosystem that were included in established ungulate winter ranges. There were also 519 hectares within the CWHxm1 ecosystem in proposed marbled murrelet WHAs. Approval of the 762 hectares of harvesting in the CHWxm1 resulted in 9570 hectares of early mature and mature forest remaining within that ecosystem in the landscape units.

The Code did not require the district manager to consider the IWMS, except where a WHA had been established. However, the district manager did consider both volume 1 and draft volume 2 of the IWMS for the cutblocks in the CDF ecosystem. Information on the conditions within the stands in these cutblocks was compared with the criteria for 'higher priority' sites for the two CDF plant communities included in both versions of the IWMS. The stands in the cutblocks were second growth, and had some disturbances and activities that were not consistent with the IWMS description. The district manager therefore determined that these were not 'higher priority' sites for conservation.

However, priority could only be determined by comparison with other known occurrences of these plant communities. The cutblocks may have been in the best available condition, relative to other remaining sites; these sites may have been important strictly from the point of view of conserving enough occurrences of any one plant community. Given the identified high risk and the limited landbase available, it was not reasonable to only consider if sites met the best case criteria. As an example, MOE had a consultant assess the conservation value of two parcels of Crown land in the CDF. Both contained stands that were second growth and had been disturbed by past and current activities. However, the consultant determined that both sites were good candidates for conservation of the red-listed plant communities present.[12]

Government policy is that WHAs must not constrain more than one percent of the short-term timber supply for the district. This limit had already been reached in the South Island Forest District, so there was no flexibility to create more WHAs and still abide by the policy. In 2003, the South Coast IAMC requested that the one percent cap be reviewed by policy makers, but that has not happened.[13] Dealing with the constraint of the one percent cap for the IWMS was not the district manager's responsibility. Nevertheless, options for WHAs were part of the district manager's consideration for how the amendment managed red-listed plant communities.

The district manager considered, and took guidance from, government policy on biodiversity as set out in the VISLUP. This was policy and not legally binding. The VISLUP objectives for biodiversity, including the old seral targets, do not provide the level of management that experts considered necessary to conserve these plant communities. The

[12] Fuller, Robert, 2004, Assessment of Crown Land Parcels.

[13] Letter from Chair of Coast IAMC to Director of Biodiversity Branch, MWLAP, Nov. 17, 2003.

Holt/Mackinnon report strongly recommended higher targets for old growth to avoid a very high risk to biodiversity and to be scientifically justifiable.

The district manager also considered the May 2003 MOAL/MOE letter. That letter resulted from discussions with MOFR about how to deal with harvesting on the east coast of Vancouver Island. The MOAL regional director and MOE regional manager said they would address the issue through their own planning processes. However, as previously discussed, the OGMA and WHA management tools were of no practical use in conserving red-listed plant communities because of policy restrictions.

The district manager's decision only applied to Crown land that made up the area of the plan, and did not consider how many occurrences of red-listed plant communities on Crown land might be required to adequately conserve the communities across the landscape, assuming that most of the occurrences on private land could be lost due to development. Whether OGMAs or WHAs would actually be used to manage red-listed plant communities was not the district manager's responsibility. Enough area remained for government to achieve higher levels than the current targets if it decided to.

The CDC list describes plant communities and correlates them to specific ecosystem types (e.g., CDF). However, this does not mean that a rare plant community actually exists in all locations of these ecosystems. Determining the actual presence of a red-listed plant community requires a field assessment. Size and condition of the community are also important to determine the community priority for conservation. CDC staff explained that the few parks in the CDF were largely impacted by invader plant species and fragmentation and, therefore, contain few viable occurrences. The district manager acknowledged that the presence or absence of red-listed plant communities within the cutblocks could not be known without a field assessment. Therefore, it was not known if any remaining options for OGMAs and WHAs would include red-listed plant communities or whether conservation options were being lost.

In deciding whether to approve an operational plan and deciding whether a resource will be adequately managed and conserved, a district manager must consider environmental, economic and social resource objectives. The district manager stated that economic/social issues had to be balanced with the need for conservation. The district manager knew that MOE staff wanted to assess areas for red-listed plant community occurrences and had recommended deferring logging until a conservation strategy was developed. But the district manager also believed that simply delaying approval was inconsistent with some economic and social values, as well as the policy advice provided by senior officials at MOE and MOAL.

The district manager could only approve the amendment if satisfied that it would adequately manage and conserve the resource. This requirement is a safety net in the Code to ensure resource impacts are properly considered. The district manager therefore had the

authority to say that no harvesting should occur on the proposed cutblocks, but was satisfied that the amendment would adequately manage and conserve red-listed plant communities. The district manager also considered that the FDP committed BCTS to protecting climax and near climax occurrences of red-listed plant communities. However, the issue for the Board in this case is the occurrences in younger stands.

The district manager gave weight to the commitment that BCTS would consult with MOE staff if red-listed plant communities were found during cutblock layout. If these could be identified, the BCTS strategy was to protect these in wildlife tree patches. However, the district manager said that management using wildlife tree patches was a minor consideration in the final determination—the nature of the surrounding landscape and the likelihood of plant occurrences there was more important.

In summary, the district manager had expert advice from the CDC, MOE staff and a hired consultant, all indicating that red-listed plant communities were at high risk of extirpation on the east coast of Vancouver Island. Policy advice from the regional director of MOAL and regional manager of MOE regarding OGMAs and WHAs was considered in the risk assessment. However, the district manager was aware that the utility of those tools was severely constrained by policy. The ecological information available for the proposed cutblocks, and on the management options outside of those cutblocks, was not sufficient to determine the implications, or the degree of conservation, for red-listed plant communities that might, or might not, actually occur in those blocks. The district manager had the authority to request more information from BCTS or other government agencies about the presence or absence of red-listed plant communities within the cutblocks, but did not.

Collection of plant community inventory is not the responsibility of MOFR but, even without inventory data, there was a high likelihood that red-listed plant communities were present in the proposed cutblocks. The government's direction, as stated in an internal bulletin,[14] is that broad land use decisions should be made by Cabinet, but that doesn't mean that the statutory decision maker has to wait for provincial direction or a higher level plan to address specific habitat requirements for plants, animals or ecosystems within a forest development plan area. The bulletin also states that accepting a high risk of elimination of a species or a population of a species is likely unreasonable, regardless of the potential benefits.

Was the decision to approve the cutblocks within the range of reasonable decisions? It is very significant that the small proportion of Crown land in the area of concern greatly reduces the ecological effectiveness of OGMAs and WHAs. They cannot be relied upon to effectively mitigate loss of rare plant communities. The approval was consistent with VISLUP policy and guidance from the MOE regional manager and MOAL regional director,

[14] Forest Practices Code Bulletin #4, *Advice to Statutory Decision Makers and their Staff from Compliance and Enforcement Branch*, July 2000.

but the district manager was not constrained by this and considered other information in the approval decision.

For the cutblocks in the CWHxm1, the district manager believed that the amount of remaining forest stands was sufficient to ensure that there would be other occurrences and that the area proposed in cutblocks would not significantly increase the risk of extirpation. Given this, and the fact that the risk to the CWHxm1 is not as great as the CDF, the decision is within the range of reasonableness.

The situation for the CDF is more critical and the area remaining is relatively small. The cutblocks would impact 67 hectares, leaving 669 hectares in early mature and mature seral stands in the four landscape units covered by the amendment. The district manager believed that the sites were not high priorities for conservation. However, without a site assessment for red-listed plant communities, the district manager could not reasonably be satisfied that a significant portion of remaining viable sites for one of the many red-listed plant communities, or the most viable occurrences for them, would not be impacted by the cutblocks. The consideration for the cutblocks in the CDF warranted a greater degree of caution because of the risk of extirpation of plant communities. It was, therefore, not reasonable for the district manager to be satisfied that the plan amendment would adequately manage and conserve the red-listed plant communities in the area of the plan within the CDF ecosystem.

Conclusions

The district manager was placed in a difficult situation. On the one hand there was policy direction for biodiversity and timber objectives both supporting approval of the plan. On the other hand there was expert opinion that red-listed plant communities were at very high risk of extirpation in the area of the plan. MOE and MOAL were not able to fill information gaps about the locations of red-listed plant communities within the cutblocks or outside of the cutblocks.

For the cutblocks in the CWHxm1, the situation was less critical than in the CDF. There are fewer red-listed plant communities and a larger landbase. It was reasonable for the district manager to be satisfied that the amendment did not significantly impact the conservation options for red-listed plant communities in the CWHxm1. However, continued harvesting without a conservation strategy in place will put red-listed plant communities within this ecosystem at greater risk.

For the cutblocks in the CDF, the situation is the most critical. The proposed cutblocks would impact an already heavily impacted ecosystem. The district manager felt that if red-listed plant communities were present in the cutblocks, they would not be a high priority for protection in WHAs. However, without requiring more information in the form of a site assessment for red-listed plant communities, the district manager could not know that the

cutblocks did not contain significant occurrences. Given the high risk of extirpation of scarce plant communities, it was not reasonable for the district manager to be satisfied that the plan amendment would adequately manage and conserve red-listed plant communities in the CDF without a site assessment.

Recommendations

The Board makes the following recommendations and asks the relevant government agencies to report to the Board on implementation of the recommendations by October 31, 2005:

1. Because of the high risk of extirpation, knowing the conservation significance of a site is critical. Staff from the South Island Forest District and MOE regional staff should work together to develop a conservation protocol for assessing areas for red-listed plant communities within the CDF in RMZ 34 before any further harvest plans are approved on the east coast of Vancouver Island.
2. In the interim, the South Island Forest District should ensure that assessments are conducted on proposed cutblocks in RMZ 34 within the CDF, before further harvesting is approved in this ecosystem. MOFR should consult CDC staff and seek agreement with MOE on the necessary expertise required to conduct assessments for element occurrences of red-listed plant communities.
3. As the red-listed plant communities are only fully developed at an old forest seral stage, the South Coast IAMC should assess whether the current landscape level planning targets for old growth in RMZ 34, in conjunction with other mechanisms, will provide adequate ecological representation in the long term, for red-listed plant communities.
4. The Board recommends that the Minister of Environment put a high priority on designating those red-listed plant communities in the coastal Douglas fir unit that may be affected by forest management on Crown land as species-at-risk, and establishing wildlife habitat areas for those species.
5. The Board reiterates and supports the November 17, 2003 recommendation from the Coast IAMC to MOE that government review and consider increasing the one percent timber supply cap on the IWMS.